**DOCKET NO.:** MSFT-1752/302730.01 PATENT

**Application No.:** 10/646,645

Office Action Dated: October 3, 2006

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:** 

Claim 1 (Currently Amended): A method for manipulating a plurality of discrete units of information ("Items"), Items, in a hardware/software interface system for a computer system, said method comprising:

between a source Item and a target Item, the target Item having an associated reference count;

determining the lifetime of each target Item based on the associated reference count;

maintaining storage of each target Item based on the lifetime; and

managing said Relationships at the hardware/software interface system level.

Claim 2 (Currently Amended): The interface system method of claim 1 wherein each Relationship from among said plurality of Relationships constitutes, at the hardware/software interface system level, a mapping between a pair of Items that said Relationship interconnects.

Claim 3 (Currently Amended): The interface system method of claim 2 wherein each Relationship has properties.

Claim 4 (Currently Amended): The <u>interface system method</u> of claim 3 wherein each Relationship comprises a <u>target</u> property (Target) for the identification of <u>the target Item of said Relationship</u>? starget Item.

Claim 5 (Currently Amended): The interface system method of claim 4 wherein each Relationship further comprises [[a]] an ownership property (IsOwned) for the corresponding to an ownership of said Relationship's target Item.

Claim 6 (Currently Amended): The interface system method of claim 3 wherein the hardware/software interface system automatically establishes a Relationship between each Page 6 of 12

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pair of Items having in which each of the Items in the pair of Items has a common value for a common property.

Claim 7 (Currently Amended): The interface system method of claim 3 wherein the hardware/software interface system automatically establishes a Relationship between each pair of Items having in which each of the Items in the pair of Items has a common property.

Claim 8 (Currently Amended): The interface system method of claim 3 wherein each Item has an Item type, and the hardware/software interface system automatically establishes a Relationship between each pair of Items having in which each of the Items in the pair of Items has the same Item type.

Claim 9 (Currently Amended): The interface system method of claim 3 wherein each Item has a parent Item type, and the hardware/software interface system automatically establishes a Relationship between each pair of Items having in which each of the Items in the pair of Items has a common parent Item type.

Claim 10 (Currently Amended): The interface system method of claim 3 wherein the hardware/software interface system automatically establishes a Relationship between each pair of Items based on a user-defined parameter.

Claim 11 (Currently Amended): A computer-readable medium with computer-readable instructions for a hardware/software interface system for a computer system, wherein said hardware/software interface system manipulates a plurality of discrete units of information ("Items"), Items, said Items interconnected by a plurality of Relationships managed by said hardware/software interface system, each Relationship being between a source Item and a target Item, the target Item having an associated reference count that is used to determine the lifetime of the target Item, and storage of each target Item is maintained based on the lifetime.

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Claim 12 (Original): The computer-readable medium of claim 11 wherein each Relationship from among said plurality of Relationships constitutes, at the hardware/software interface system level, a mapping between a pair of Items that said Relationship interconnects.

Claim 13 (Original): The computer-readable medium of claim 12 wherein each Relationship has properties.

Claim 14 (Currently Amended): The computer-readable medium of claim 13 wherein each Relationship comprises a <u>target</u> property (Target) for the identification of <u>the target Item of</u> said <u>Relationship</u>? starget Item.

Claim 15 (Currently Amended): The computer-readable medium of claim 14 wherein each Relationship further comprises [[a]] an ownership property (IsOwned) for the corresponding to an ownership of said Relationship's target Item.

Claim 16 (Currently Amended): The computer-readable medium of claim 13 wherein the hardware/software interface system automatically establishes a Relationship between each pair of Items having in which each of the Items in the pair of Items has a common value for a common property.

Claim 17 (Currently Amended): The computer-readable medium of claim 13 wherein the hardware/software interface system automatically establishes a Relationship between each pair of Items having in which each of the Items in the pair of Items has a common property.

Claim 18 (Currently Amended): The computer-readable medium of claim 13 wherein <u>each</u>

<u>Item has an Item type</u>, and the hardware/software interface system automatically establishes a

Relationship between each pair of Items <u>having</u> in which each of the Items in the pair of

<u>Items has</u> the same Item type.

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Claim 19 (Currently Amended): The computer-readable medium of claim 13 wherein <u>each</u> <u>Item has a parent Item type</u>, <u>and</u> the hardware/software interface system automatically establishes a Relationship between each pair of Items <u>having</u> in which each of the Items in <u>the pair of Items has</u> a common parent Item type.

Claim 20 (Original): The computer-readable medium of claim 13 wherein the hardware/software interface system automatically establishes a Relationship between each pair of Items based on a user-defined parameter.

Claim 21 (Currently Amended): A hardware/software interface system, for use in a computer system, for manipulating a plurality of discrete units of information ("Items"), Items, wherein said Items <u>are</u> interconnected by a plurality of Relationships managed by said hardware/software interface system, each Relationship being between a source Item and a target Item, the target Item having an associated reference count that is used to determine the lifetime of the target Item, and storage of each target Item is maintained based on the lifetime.

Claim 22 (Original): The interface system of claim 21 wherein each Relationship from among said plurality of Relationships constitutes, at the hardware/software interface system level, a mapping between a pair of Items that said Relationship interconnects.

Claim 23 (Original): The interface system of claim 22 wherein each Relationship has properties.

Claim 24 (Currently Amended): The interface system of claim 23 wherein each Relationship comprises a <u>target property (Target)</u> for the identification of <u>the target Item of said</u>
Relationship Relationship's target Item.

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Claim 25 (Currently Amended): The interface system of claim 24 wherein each Relationship further comprises [[a]] an ownership property (IsOwned) for the corresponding to an ownership of said Relationship's target Item.

Claim 26 (Currently Amended): The interface system of claim 23 wherein the hardware/software interface system automatically establishes a Relationship between each pair of Items having in which each of the Items in the pair of Items has a common value for a common property.

Claim 27 (Currently Amended): The interface system of claim 23 wherein the hardware/software interface system automatically establishes a Relationship between each pair of Items having in which each of the Items in the pair of Items has a common property.

Claim 28 (Currently Amended): The interface system of claim 23 wherein each Item has an Item type, and the hardware/software interface system automatically establishes a Relationship between each pair of Items having in which each of the Items in the pair of Items has the same Item type.

Claim 29 (Currently Amended): The interface system of claim 23 wherein <u>each Item has a parent Item type</u>, and the hardware/software interface system automatically establishes a Relationship between each pair of Items <u>having</u> in which each of the Items in the pair of Items has a common parent Item type.

Claim 30 (Original): The interface system of claim 23 wherein the hardware/software interface system automatically establishes a Relationship between each pair of Items based on a user-defined parameter.